

CLAIMS

1. A power supply device comprising a rectification circuit for rectifying the output of an AC power generator and a DC voltage reduction means for stepping down the DC output from the rectification circuit,

wherein said voltage reduction means is a non-insulation type DC/DC converter, and

10 there is provided a self-excited oscillation type converter having a primary side connected to the output side of said non-insulation type DC/DC converter and a secondary side used as the power supply output.

2. The power supply device according to Claim 1, comprising:

15 a switching means for performing duty control on said non-insulation type DC/DC converter; and

a switching-means driving circuit which maintains said switching means at an ON state until the AC output voltage from said AC power generator exceeds a predetermined value and starts the duty control with said switching means at the time when said 20 AC output voltage exceeds the predetermined value.

3. The power supply device according to Claim 2,

wherein said self-excited oscillation type converter is structured to start operation, before said AC output voltage reaches said predetermined value that causes the start of the duty control 25 for said DC/DC converter.